UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,444	10/28/2005	Abdelwahab Aroussi	6817-A-1	2146

26740 7590 09/20/2010

The von HELLENS LAW FIRM, LTD.
C. Robert von Hellens
7330 N 16TH STREET
SUITE C 201
PHOENIX, AZ 85020

EXAMINER	
SORKIN, DAVID L	

ART UNIT	PAPER NUMBER
1797	

NOTIFICATION DATE	DELIVERY MODE
09/20/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

robert@vonhellenslaw.com
cathy@vonhellenslaw.com

Office Action Summary	Application No.	Applicant(s)	
	10/527,444	AROUSSI, ABDELWAHAB	
	Examiner	Art Unit	
	DAVID L. SORKIN	1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 September 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,23,24,26 and 29-59* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,23,24,26 and 29-59* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 07 September 2010 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 29 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The relatively rapid increase and relatively gradual decrease requirements of this claim contradict the parent claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 23, 24 and 29-50 are rejected under 35 U.S.C. 102(b) as being anticipated by Fredriksson et al. (US 4,861,165). Regarding claim 1, Fredriksson

discloses a pipe having an inlet end and an outlet end and including a core defined by two or more core pipe sections having a common longitudinal axis and arranged in pairs comprising respective upstream (27) and downstream core (24) pipe sections lying adjacent one another in a fixed spatial arrangement and connected in series between the inlet and outlet end, each pair of upstream and downstream pipe sections defining an upstream inlet and a downstream outlet, each of the upstream inlet and downstream outlet having fixed cross-sectional areas, the upstream and downstream pipe sections in each pair defining different relative gradual or rapid change in cross-sectional area wherein the upstream core pip section defines and angle of greater than 40 degrees to its longitudinal axis (see col. 4, lines 10-13) and the downstream core pipe section defines an angle of greater than 40 degrees to its longitudinal axis (col. 4, lines 8-10), the cross sectional area of each upstream core pipe section increasing from an inlet cross sectional area at an upstream end (25) thereof to a relatively larger cross sectional area at a downstream end (22) thereof and the cross sectional area of each downstream core pipe section decreasing from a relatively larger cross sectional area at the upstream end (23) thereof to a relatively smaller cross-sectional area at the outlet end (25) thereof. Regarding claim 23, the cross-sectional areas of the inlet and outlet ends are equal (see Figs. 1 and 2). Regarding claim 24, each upstream core pipe section defines a relatively gradual increase in cross-sectional area from the inlet cross-sectional area (at 25) to a maximum cross-sectional area at the downstream end (22/23) thereof and each downstream core pipe section defines a relatively rapid decrease in cross-sectional area from the maximum cross-sectional area to an outlet

cross-sectional area at a downstream end (25) thereof. The scope of claim 29 is unclear as discussed above; the structure of Fredriksson is shown in Fig. 1. Regarding claim 30, the core has two pairs and middle section (see Fig. 1). Regarding claim 31, Fredriksson discloses a pipe having an inlet end and an outlet end and including a core defined by two or more core pipe sections having a common longitudinal axis and arranged in pairs comprising respective upstream (27) and downstream (24) core pipe sections lying adjacent to one another in a fixed spatial arrangement and connected in series between the inlet end and the outlet end, each pair of upstream and downstream pipe sections defining an upstream inlet and a downstream outlet having fixed cross-sectional areas, the upstream and the downstream pipe sections in each pair defining different relatively gradual or rapid changes in cross-sectional area wherein the upstream core pip section defines and angle of greater than 40 degrees to its longitudinal axis (see col. 4, lines 10-13) and the downstream core pipe section defines an angle of greater than 40 degrees to its longitudinal axis (col. 4, lines 8-10), the cross sectional area of each upstream core pipe section increasing from an inlet cross sectional area at an upstream end (25) thereof to a relatively larger cross sectional area at a downstream end (22) thereof and the cross sectional area of each downstream core pipe section decreasing from a relatively larger cross sectional area at the upstream end (23) thereof to a relatively smaller cross-sectional area at the outlet end (25) thereof; and a flow control system located at the inlet end (see Figs. 1 and 2). Regarding claim 32, Fredriksson discloses a pipe having an inlet end and an outlet end and including a core defined by two or more core pipe sections arranged in pairs

comprising respective upstream (27) and downstream (24) core pipe sections lying adjacent to one another in fixed spatial arrangement and connected in series between the inlet end and the outlet end, each upstream and downstream core pipe sections defining an upstream inlet and a downstream outlet, each of upstream inlet and the downstream outlet having fixed cross-sectional areas, the upstream and the downstream pipe sections in each pair defining different relatively gradual or rapid changes in cross-sectional area wherein the upstream core pip section defines and angle of greater than 40 degrees to its longitudinal axis (see col. 4, lines 10-13) and the downstream core pipe section defines an angle of greater than 40 degrees to its longitudinal axis (col. 4, lines 8-10), the cross sectional area of each upstream core pipe section increasing from an inlet cross sectional area at an upstream end (25) thereof to a relatively larger cross sectional area at a downstream end (22) thereof and the cross sectional area of each downstream core pipe section decreasing from a relatively larger cross sectional area at the upstream end (23) thereof to a relatively smaller cross-sectional area at the outlet end (25) thereof, the flow homogenizer further including a flow control system located at the outlet end (see Figs. 1 and 2). Regarding claim 33-44, Fredriksson discloses a tapered throat / wedge-shaped ramp/ aerofoil (24,27) is located at the inlet and outlet ends. Regarding claims 45-50, a jet is located at an end (see Fig. 1).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fredriksson et al. (US 4,861,165). Numerical values for the recited size ratios are not provided by Fredriksson. See *Gardner v. TEC Systems*, Inc., 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984) concerning the obviousness of selecting relative dimensions.

8. Claims 51-59 rejected under 35 U.S.C. 103(a) as being unpatentable over Fredriksson et al. (US 4,861,165). The exact values of the recited angles are not disclosed by Fredricksson. However, these angles are recognized as result effective variables in col. 4, lines 3-33. It would have been obvious to one of ordinary skill in the art to have optimized these recognized result effective variables.

Response to Arguments

9. Applicant's arguments have been considered but are moot in view of the new grounds of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID L. SORKIN whose telephone number is (571)272-1148. The examiner can normally be reached on Mon.-Fri. 7:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter D. Griffin can be reached on 571-272-1447. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DAVID L. SORKIN/
Primary Examiner, Art Unit 1797